

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

PURECHOICE, INC.,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. 2:06-CV-244
	§	
HONEYWELL INTERNATIONAL INC.,	§	
	§	
Defendant.	§	

**MEMORANDUM OPINION AND ORDER**

After considering the submissions and the arguments of counsel, the Court issues the following order concerning the claim construction issues:

**I. Introduction**

Plaintiff PureChoice, Inc. (“PureChoice”) accuses Defendant Honeywell International, Inc. (“Honeywell”) of infringing claims of United States Reissued Patent No. RE38,985 (“the ‘985 patent”). The ‘985 patent is a reissue of USPN 5,892,690 (“the ‘690 patent”), which was filed on March 10, 1997. The reissue application was filed by PureChoice on April 2, 2001 to amend independent claims 1 and 16, and to add claims 21-76. This reissue proceeding was merged with a reexamination proceeding that was filed by a third party on September 18, 2002 alleging that all of the claims of the ‘690 patent were invalid in light of USPN 5,568,385 (“the Shelton reference”). After a number of amendments, the reissue application issued on February 14, 2006 as the ‘985 patent.

**II. Background of the Technology**

The ‘985 patent is directed to a remote environmental monitoring system which is programmed to “systematically collect [environment] air quality environmental data and non-weather

data for a site.” ‘985 patent Abstract. The summary of the invention states:

The environment monitoring system of the present invention includes a data acquisition system for collecting and recording environment data at various sites. The data acquisition system includes sensors and a data storage device coupled to the sensors. The data acquisition system is programmed to systematically and continuously collect environment data from the sensors. Data is measured by the sensors and transmitted to the site data storage device.

Preferably, data from the many sites is centrally accumulated and stored in a remote comprehensive database. The remote comprehensive database is designed to store data by site and includes remote access software for electronically communicating with a remote access device at each data site for accumulating data for the comprehensive database.

‘985 patent 1:49-62. Below is claim 1 which includes most of the terms in dispute:

### **Claim 1**

An air quality monitoring system comprising:

a data acquisition system for collecting air quality data at a data acquisition site, said data acquisition system including:

- at least one sensor for measuring *environmental* air quality data;
- a second plurality air quality sensor adapted to measure non-weather data;*
- a data storage device coupled to the sensor for storing data measured by the sensor;
- a remote access device coupled to the data storage device for electronically accessing measured data stored on the data storage device from a remote system;
- [means for converting sensor data to an air quality measurement based upon sensor type;]
- a remote database for storing air quality data from a plurality of data acquisition systems;
- a remote access device coupled to the remote database for electronically accessing the remote database for uploading and storing measured data from data acquisition sites;
- and
- means for systematically and automatically uploading data from acquisition sites to the remote database.

‘985 patent at 5:60-6:15 (italics and brackets in original).

### **III. General Principles Governing Claim Construction**

“A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc.*

*v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This court's claim construction decision must be informed by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set

forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that “the *claims* of a patent define the invention to which the patentee is entitled the right to exclude.” 415 F.3d at 1312 (emphasis added) (*quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (*quoting Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Phillips*, 415 F.3d at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at 1319-24. The approach suggested by *Texas Digital*—the assignment of a limited role to the specification—was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* at 1320-21. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on

the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors’ objective of assembling all of the possible definitions for a word. *Id.* at 1321-22.

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. The court now turns to a discussion of the disputed claim terms.

#### **IV. Terms in Dispute**

##### **A. Agreed Constructions**

The parties have agreed to the following constructions for use in the ‘985 patent:

“Coupled” means “directly or indirectly connected.”

“Means for converting the measurements to air quality data based upon the sensor type of the measured data” means “program run by a processor that translates data into measurements

appropriate to the type of sensor (e.g. ppms) or equivalents thereof.”<sup>1</sup>

## **B. Disputed Constructions**

Despite the parties’ proposals, it is necessary to consider only three of the terms in dispute. Two of these terms are insolubly ambiguous and render the independent claims invalid. Thus, construction of additional terms is unnecessary.

### **1. “air quality”**

PureChoice proposes “a quality of the air.” Honeywell proposes “concentration of pollutants or contaminates in the air. The term ‘air quality’ does not mean or include meteorological, climate, or comfort-related variables, such as temperature and humidity.”

PureChoice argues that because of the environments described in the patent, tempature and humidity should not be excluded from the term “air quality.” Specifically, the patent discusses both (1) “attributes to include not only those that affect health, but also more generally those contibuting to an occupant’s ‘well being’ (e.g., comfort),” and (2) “air properties significant to a manufacturing process, such as in the tightly controlled environmental conditions necessary for the manufacture[sic] pharmaceuticals.” Brief at 8.

PureChoice cites to a response filed as part of the reissue proceeding. The examiner rejected a few claims as unclear because “he cannot understand why a processing device in the remote data collection system is programmed to convert sensor data to air quality data.” Ex. D to Brief at PC000218. The patentee responded that “[i]t may be desirable to immediately convert the resulting digital value to an air quality value. To do this, the digital value must be put into the context of what

---

<sup>1</sup> Honeywell indicated in its Response that it “will stipulate to PureChoice’s proposed construction for this phrase.” Response at 1. By doing so, Honeywell dropped its argument that this claim was invalid under § 112 (6) for failing to disclose any structure(s).

is being sensed (for example, smoke level, CO level, temperature).” *Id.* PureChoice also argues that prior art before the examiner during prosecution “identified the ‘principal IAQ indicators’ (indoor air quality indicators) as ‘volumetric airflow, relative humidity, temperature and carbon dioxide levels.’” Brief at 7.

Honeywell argues that the ‘985 patent describes “air quality” exclusively in terms of pollutants and contaminants. *See e.g.*, ‘985 patent at 1:15-46 (“[o]ther environments require a consistent and predetermined air quality, which is free of pollutants, toxins and chemicals, such as hospitals, nursing homes, pharmaceutical manufacturing facilities that require clean rooms”). Honeywell further argues that the specification limits the scope of the invention to include only those sensors that measure pollutants or contaminants:

Various sensors 14a-n may be employed for testing various air quality attributes. Examples of types of sensors that may be employed include smoke or particle sensors, volatile organic compound sensors, or carbon monoxide sensors. Preferably, the system 10 employs a particle sensor and a volatile organic compound sensor. Other sensors that produce an electronic signal proportional to the presence of foreign substances, such as toxins or other chemicals may be employed and the invention is not intended to be limited to the particular sensors described.

‘985 patent at 4:37-46.

Honeywell also argues that “[i]n addition to being instructive for what it discloses, the ‘985 patent’s specification also is instructive for what it does *not* disclose.” Response at 13 (emphasis in original). Because the inventors did not disclose any reference to meteorological, climate, or thermal measurements in the specification, Honeywell argues that the term “air quality” cannot be so broadly defined.

Beyond to the specification, Honeywell cites to the prosecution history to further support its construction. The applicants amended their claims by deleting the term “environment” and replacing



it with “air quality” to overcome a rejection in light of United States Patent No. 5,491,473 (“the Gilbert reference”). Ex. 7 to Response. In the remarks to this amendment, the applicants stated:

Applicants’ invention relates to measuring air quality, and Applicants’ invention discloses the use of such sensors as smoke sensors, particle sensors, volatile organic compound sensors, or carbon monoxide sensors for collecting and monitoring air quality. Such sensors produce an electronic signal proportional to the presence of foreign substances. The electronic signal is converted to an air quality measurement, such as particles per cubic meters of air. . . . Gilbert does not teach the system of sensors of the present invention for measuring air quality, nor the type of data collected or stored.

Id. at HW0043645.

Honeywell argues that in addition to the original prosecution, the reexamination proceeding is further support that its construction is correct. During this proceeding, the applicants made amendments to the claims to overcome rejections in view of the Shelton reference. In one of the rejections, the examiner stated that Shelton “disclose[s] presentation of air quality data (e.g. pollution information) to an analyst user, based on the data collected by the various sensors. Accordingly, the sensors located at the stations include air quality data sensors.” Ex. 20 to Response at 3.

In light of the specification and comments made during prosecution and reexamination, the term “air quality” in the ‘985 patent’s claims refers to pollutants or contaminants. One of skill in the art reviewing these various statements and disclosures would conclude that the applicant viewed “air quality” to mean “concentration of pollutants or contaminants in the air.”

**2. “sensor for measuring environmental air quality data / sensor for measuring environmental data”**

PureChoice proposes “sensors for measuring quantitative information regarding an air quality of the environment in the data acquisition site.” Honeywell does not offer a construction, but rather argues that these elements are indefinite under 35 U.S.C. § 112.

PureChoice argues that the “claims make clear that the environmental data concerns a quantitative measurement of an air quality collected at the data acquisition site.” Brief at 10. According to PureChoice, the fact that the data is “environmental” merely indicates “that it pertains to the physical environment (*i.e.*, the surrounding conditions).” *Id.* No arguments are presented as to what would, or would not, be considered “environmental air quality data.”

The crux of Honeywell’s argument is that it is impossible to construe or differentiate the terms “environmental air quality” and “non-weather” air quality (discussed in the next section). Because these terms resulted from amendments made following two undocumented telephone interviews during reexamination, Honeywell argues that neither the specification or prosecution history provides any guidance as to how one skilled in the art should construe these terms.

For example, the preferred embodiment contains a “particle sensor and a volatile organic compound sensor.” ‘985 patent at 4:41-42. Typically, claims should be construed so as to read on the preferred embodiment. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). According to Honeywell, the intrinsic record provides no basis for determining which of these sensors would be measuring “environmental air quality” and which would be measuring “non-weather” air quality.<sup>2</sup> Response at 20-22.

Though Honeywell does not propose a definition for these terms, it does refute PureChoice’s proposed definition on at least three grounds: (1) as proposed, PureChoice’s constructions “are so vague and ambiguous that they would need their own constructions;” (2) a construction of “environmental air quality” that includes temperature and humidity would be inconsistent with the

---

<sup>2</sup> Honeywell notes that one of the inventors, Dr. Boatman, could not explain the difference. Response at 22.

correct definition of “air quality” as well as an attempt by PureChoice to use the reexamination proceeding to recapture claim scope surrendered in the original prosecution; and (3) this construction would not read onto the preferred embodiment.

In its reply, PureChoice presents a new argument that “non-weather” air quality is a subset of the “environmental air quality data.” Reply at 9. In response, Honeywell contends that the “file history makes it abundantly clear that the two air quality attributes must be separate and distinct from one another; which precludes a subset/superset relationship.” Sur-reply at 5 (citing Response at 19-20).

“A claim is not indefinite merely because it poses a difficult issue of claim construction; if the claim is subject to construction, i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness.” *See Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1372 (Fed. Cir. 2004). “By finding claims indefinite only if reasonable efforts at claim construction prove futile, we accord respect to the statutory presumption of patent validity, *see* 35 U.S.C. § 282, and we protect the inventive contribution of patentees, even when the drafting of their patents has been less than ideal.” *Id.*

The patent owner in a *ex parte* reexamination proceeding has a duty to file a written statement. 37 C.F.R. 1.560(b) (“In every instance of an interview with an examiner in an *ex parte* reexamination proceeding, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the patent owner”).

The patent owner did not reduce either of the last two phone interviews with the examiner to a written statement. The failure to comply with 37 C.F.R. 1.560(b) does not render a claim invalid. The lack of written record, however, does not provide this court or the public with any

information in the prosecution history to determine the scope of these claim terms. The written description is also silent as to these terms. Although there may be some circumstances in which a patentee might overcome these deficiencies, this is not such a case. In this instance, the term is incapable of construction. *See e.g., Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002) (“It is not our function to rewrite [indefinite] claims to preserve their validity.”).

The claim language is not “sufficiently precise to permit a potential competitor to determine whether or not he is infringing.” *Morton Int’l v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470 (Fed. Cir. 1993). Therefore, the court finds that this limitation is indefinite.

### **3. “air quality sensor adapted to measure non-weather data”**

PureChoice proposes “air quality sensor adapted to measure quantitatively an air property in the controlled environment of a type not normally identified with weather (e.g. not temperature or humidity).” Honeywell does not offer a construction, but rather argues that these elements are indefinite under 35 U.S.C. § 112.

PureChoice argues that “[a] review of the prosecution history as it concerns this limitation is necessary to understanding its construction.” Brief at 11. Like the term “environmental air quality data,” this limitation was introduced following an undocumented interview with the examiner. The Shelton reference described a system of weather stations design to measure parameters including: temperature, humidity, barometric pressure, wind speed, rain, snow, and cloud cover. Ex. M to Brief at 2:24-29. Therefore, PureChoice argues that “non-weather data” would refer to measures of air quality not normally identified with weather.<sup>3</sup>

---

<sup>3</sup> PureChoice also seeks to include the limitation to this term that the air property is in “the controlled environment.” The court rejects this limitation.

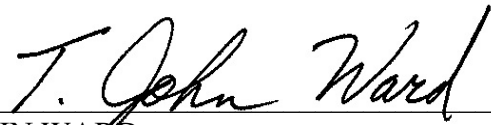
Honeywell advanced the same indefiniteness arguments for this term as for the “sensor for measuring environmental air quality data / sensor for measuring environmental data” term, above.

As with the previous term, this term is incapable of construction. Therefore, the court finds that this limitation is indefinite.

**VI. Conclusion**

In view of the court’s reasoning, asserted independent claims 1, 16, 21 and 62 are invalid as indefinite. The defendant is to submit a proposed final judgment within ten (10) days of this order.

SIGNED this 22nd day of January, 2008.

  
\_\_\_\_\_  
T. JOHN WARD  
UNITED STATES DISTRICT JUDGE